

REMARKS

The following remarks are submitted to address the issues raised in the Office Action mailed February 18, 2005. Claims 1-23 are pending in the application, claims 6-23 have been withdrawn from consideration. Claims 1-5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Freudenberg (DE 29715911U).

Claims 1-5 – 35 U.S.C. § 102(b)

The rejection of claims 1-5 under 35 U.S.C. § 102(b) as being anticipated by Freudenberg, DE 29715911, (hereinafter “the DE reference”) is respectfully traversed.

Freudenberg relates to a sealing device employed between a high-pressure space and a low-pressure space. (See, the DE reference, para. [0001]). While not specifically stated in the specification, this type of seal is used primarily to create a fluid tight seal between, for example, two pieces of pipe carrying pressurized fluid. The geometry of the seal and surrounding sealing surfaces is described with reference to FIG. 2:

In the installation state free of a differential pressure (Figure 2), only lip 2 of the sealing ring contacts counter-sealing surface 3. On the low-pressure side, there is a gap 15 with increasing width towards the low-pressure side between counter-sealing surface 3 and peripheral surface 16 of sealing ring 1 interacting with it. On the contrary, the peripheral surface of sealing ring 1 which is remote from counter-sealing surface 3 contacts side surface 5 of installation space 17 *over its entire surface*. This is based on the excess dimensions of sealing ring 1 with respect to side surface 5 of the installation space and the thereby generated initial tensioning of sealing ring 1 away from counter-sealing surface 3. This is a means of keeping gap 15 open

between the sealing ring and counter-sealing surface 3. (*emphasis added*)
(the DE reference, para. [0016])

According to MPEP § 2131, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The DE reference fails to recite each and every element of claim 1 and therefore is not anticipated by the DE reference.

One limitation of claim 1 of the present invention recites, "*wherein the radially outer surface of the unitizing element comprises two areas of differing diameter, one corresponding to the rotor engaging member and the other corresponding to the rear member*". These areas are designated as 36 and 34, respectively, in the figures of the present invention. The radially outer diameter of the present invention is divided into two distinct areas, one of which is associated with one sealing surface (the rotor) and the other associated with the second sealing surface (the stator). While the device of the DE reference does comprise areas of differing outer diameter, they are all associated with one sealing surface designated "5" in the figures. The disclosure of the DE reference is consistent in that the entire radially outer surface of the device contacts a single side surface. Nowhere does the DE reference contemplate different sealing surfaces engaging different portions of the radially outer surface of the device. As such, the DE reference does not teach or suggest two areas of differing diameter, one corresponding to the rotor engaging member and the other corresponding to the rear member, as is required by claim 1 of the present invention.

Further to this, there is no disclosure in the DE reference to suggest employing the device between a rotor and a stator. As discussed above, the preferred use for the

device of the DE reference is between two sealing surfaces to create a seal between a high-pressure space and a low-pressure space. One of the areas of differing diameter of the DE reference cannot be said to be a “rotor engaging member” because there is no suggestion of a rotor to engage. All sealing surfaces described in every embodiment in the DE reference are stationary.

This is not surprising because the device of the DE reference is designed to solve a significantly different problem than the unitizing element of the present invention. The device of the DE reference provides a means for sealing *two stationary surfaces* and creating barrier between a high-pressure space and low-pressure space. In contrast, the present invention provides a *unitizing element* to connect and create a dynamic seal between a *spinning rotor* and *stator*. The seal of the present invention is constructed to seal the area between said rotor and stator so as to exclude contaminants and retain lubricant. At the same time the unitizing element of the present invention allows one sealing surface (the rotor) to move relative to the other sealing surface (the stator) in a rotational manner, *while limiting movement of the rotor in an axial direction*. (See, present invention, para. [0011])

As a result of the different design and use characteristics of the device in the DE reference, the DE reference does not, and would not be expected to, provide a *unitizing function* as required by claim 1 of the present invention. The unitizing function of the present invention is provided by the presently claimed device through the interaction of the rotor engaging member with the rotor and the stator engaging member with the stator as described in paragraphs [0042-0043], and elsewhere, in the present specification. No aspect of the device in the DE reference would maintain a *unitizing function* when positioned between the two sealing surfaces as described therein. Thus, the DE reference fails to describe a *unitizing element* as described in claim 1 of the present invention.

As such, Applicant submits that the DE reference fails to anticipate each and every element of claim 1 of the present invention. Claims 2-5 all depend from claim 1. Thus, because claims dependant upon a novel base claim must be novel themselves, Applicant submits that claims 2-5 are not anticipated by the DE reference. Therefore, the Office is respectfully requested to withdraw the rejection to claims 1-5 under 35 U.S.C. § 102(b).

Conclusion

Applicants respectfully request early consideration of the present application, entry of all amendments herein requested, and allowance of all pending claims.

The Examiner is respectfully invited to contact Todd W. Galinski at (336) 607-7448, to discuss any matter relating to this application.

Respectfully submitted,

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